

Montana Department of Natural Resources and Conservation  
Water Resources Division  
Water Rights Bureau

**ENVIRONMENTAL ASSESSMENT**  
**For Routine Actions with Limited Environmental Impact**

**Part I. Proposed Action Description**

**1. Applicant/Contact name and address:**

Prairie Dog Development  
719 3<sup>rd</sup> St West  
Whitefish, MT 59937

**2. Type of action:** Application for Beneficial Water Use Permit 76LJ 30104113

**3. Water source name:** Groundwater

**4. Location affected by project:** The place of use is Halfmoon Meadows Subdivision, NWNW, SWNW, Sec 12, R21W, T30N, Flathead County, MT

**5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:**

The Applicant proposes to divert groundwater for multiple domestic use January 1<sup>st</sup> thru December 31<sup>st</sup> and lawn and garden irrigation April 20<sup>th</sup> thru October 10<sup>th</sup> at a rate of 150 GPM up to 84.03 AF from two wells in the SWNWNW Sec 12, R21W, T30N, Flathead, Montana. This is a subdivision, a total of 47 lots will be developed and 39.01 acres will be irrigated. The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

**6. Agencies consulted during preparation of the Environmental Assessment:  
(include agencies with overlapping jurisdiction)**

- U.S. Fish and Wildlife Service and Montana Natural Heritage Program: Endangered, Threatened Species and Species of Special Concern, Wetland Mapper program
- Montana Department of Fish Wildlife & Parks (DFWP); Dewatered Stream Information
- Montana Department of Environmental Quality's (MDEQ) Clean Water Act Information and PWS Drinking Water Watch databases
- U.S. Natural Resource Conservation Service (NRCS); web soil survey
- Montana Historical Society

**Part II. Environmental Review**

**1. Environmental Impact Checklist:**

## PHYSICAL ENVIRONMENT

### **WATER QUANTITY, QUALITY AND DISTRIBUTION**

**Water quantity** - *Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

The applicant proposes to divert groundwater; depletions to the following two surface water sources could occur. Flathead River and Flathead Lake are not listed by DFWP as chronically or periodically dewatered. Upon analysis by the Department the source aquifer, Flathead River, and Flathead Lake were found to have water in excess of that requested by the Applicant.

*Determination:* No impact.

**Water quality** - *Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

According to the Montana Department of Environmental Quality's (MDEQ) Clean Water Act Information Center in 2016 the Flathead River was categorized as having insufficient data to assess any use. Flathead Lake fully supports drinking water, primary contact recreation, and agriculture. Aquatic life is not fully supported due to mercury, polychlorinated biphenyls, nitrogen and phosphorus. The Applicant is proposing to utilize groundwater from a well that will reduce flow to the Flathead River. The wells are approximately 2 miles northwest of the Flathead River. The total volume of water potentially depleted from the two surface water sources is 37.4 GPM/month and is expected to have little or no effect on the water quality of these sources.

*Determination:* No impact.

**Groundwater** - *Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

The proposed use will reduce discharge from the source aquifer to the Flathead River and Flathead Lake in an amount equivalent to their consumptive use. 60.3 AF of 84.03 AF of water that is diverted is consumed. Groundwater flow paths immediately surrounding the wells will be altered due to the proposed project. The source aquifer is hydraulically connected to the Deep Aquifer in Flathead Valley. Groundwater and surface water quality will not be negatively impacted.

*Determination:* No impact.

**DIVERSION WORKS** - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

The proposed appropriation will utilize two wells (PWS #1 GWIC 283967, PWS #2 GWIC 284094) that are 75 feet apart. PWS #1 is 375 feet deep and has a static water level of 113 feet below ground surface (bgs). It is made of welded steel and PVC. Perforations exist from 266-276 ft bgs. PWS #2 is 400 feet deep and has a static water level of 110 feet bgs. The casing is made of steel and PVC. Perforations exist from 244-254, 277-307, and 300-400 ft bgs. The wells were drilled by a licensed well driller (license # WWC-335) in accordance with MCA Title 37, Chapter 43 and ARM Title 36, Chapter 21.

Each well will house a Franklin Electric FPS SR Series 6" stainless steel submersible pump with a 15-hp motor, with 7 stages. Each pump is rated to produce 150 GPM at 280 feet of total dynamic head. A DLJ Epoxy Coated Cast Iron Turbine Meter, model 400T, or an equivalent model will be installed to measure diverted water. The well pumps will run on an alternate schedule, but never run simultaneously. Water from the wells will travel to a pump house which will house eight WX-350 pressure tanks and a VFD, which will run the pumps. From the pump house water will travel through 4 inch line to a 6,000 gallon underground emergency water storage tank. This tank supplies water to a hydrant that may be used to fill emergency fire vehicles. 1-inch water lines will service each residence. Water meters will be required for each water service as noted in the Homeowners Association's Covenants, Conditions and Restrictions. The water system was designed by Rob Smith, P.E. of A2Z Engineering, PLLC.

The proposed project shall not impact any channels, barriers, riparian areas and dams.

Groundwater flow to surface waters will be modified; however modeling done by Department hydrogeologists show that no significant negative impact will occur to existing water users and surface/groundwater resources.

*Determination:* No impact.

#### **UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES**

***Endangered and threatened species*** - Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."

The Montana Natural Heritage Program and DFWP websites were reviewed to determine if there are any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern", that could be impacted by the proposed project.

According to the Montana Natural Heritage Program in Township 30N, Range 21W there are three plant species of concern. Deer Indian Paintbrush (*Castilleja coccinea*), Latah Tule Pea (*Lathyrus bijugatus*), and Aloina moss (*Aloina brevirostris*). Agriculture or human development has occurred on or around this parcel of land for many years; any impacts to sensitive plant species has most likely already occurred.

The Bull Trout (*Salvelinus confluentus*) is listed as threatened by the USFS. The Westslope Cuthroat Trout (*Oncorhynchus clarkii lewisi*) and Bald Eagle (*Haliaeetus leucocephalus*) are listed as sensitive by the USFS. The Pygmy Whitefish (*Prosopium coulteri*), Hoary Bat (*Lasiurus cinereus*), Little Brown Myotis (*Myotis lucifugus*), Great Blue-Heron (*Ardea herodias*), Brown Creeper (*Certhia americana*), Evening Grosbeak (*Coccothraustes vespertinus*)

and Bobolink (*Dolichonyx oryzivorus*) are rated as S3 or S3B by the state of Montana. Meaning their populations are potentially at risk because of limited and or declining numbers. An adequate quantity of water will still exist in all sources of water to maintain existing populations of fish should they exist there currently. Agriculture or human development has occurred on or around this parcel of land for many years; any impacts to sensitive mammal species most likely has already occurred. No impact.

*Determination:* No impact.

**Wetlands** - *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

*Determination:* N/A, project does not involve wetlands or critical riparian habitats

**Ponds** - *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

*Determination:* N/A, project does not involve ponds.

**GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE** - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

According to soil survey data provided by the NRCS, soil within the place of use consists mostly of very fine sandy loam. The soil drainage class is well drained; the capacity of the most limiting layer of soil to transmit water is moderately high (0.20 – 0.57 in/hour). Soils within the place of use are not susceptible to saline seep. The stability of the soil profile and moisture content will not be significantly altered with the use of groundwater within the subdivision. No degradation of soil quality shall occur.

*Determination:* No impact.

**VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS** - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

The development of this subdivision will remove/disturb existing vegetation. Noxious weeds could be established or spread during construction. Grass yards are planned for each residence; eliminating any populations of noxious weeds that may have been established during construction.

*Determination:* No impact.

**AIR QUALITY** - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Adverse air quality impacts from increased air pollutants are not expected as a result of this project. No air pollutants were identified as resulting from the applicants proposed use of groundwater.

*Determination:* No impact.

**HISTORICAL AND ARCHEOLOGICAL SITES** - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.*

*Determination:* N/A, project is not located on state or federal land.

**DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY** - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

All impacts to land, water and energy have been identified and no further impacts are anticipated.

*Determination:* No impact.

## HUMAN ENVIRONMENT

**LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS** - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

The project is located in an area with no locally adopted environmental plans.

*Determination:* No impact.

**ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES** - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

The proposed project will not inhibit, alter or impair access to present recreational opportunities in the area. The project is not expected to create any significant pollution, noise, or traffic congestion in the area that may alter the quality of recreational opportunities. The proposed place of use and diversion do not exist on land designated as wilderness.

*Determination:* No impact.

**HUMAN HEALTH** - *Assess whether the proposed project impacts on human health.*

There should be no significant negative impact on human health from this proposed use.

*Determination:* No impact.

**PRIVATE PROPERTY** - Assess whether there are any government regulatory impacts on private property rights.

Yes\_\_\_ No x If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: No impact.

**OTHER HUMAN ENVIRONMENTAL ISSUES** - For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.

Impacts on:

- (a) Cultural uniqueness and diversity? None identified.
- (b) Local and state tax base and tax revenues? None identified.
- (c) Existing land uses? None identified.
- (d) Quantity and distribution of employment? None identified.
- (e) Distribution and density of population and housing? None identified.
- (f) Demands for government services? None identified.
- (g) Industrial and commercial activity? None identified.
- (h) Utilities? None identified.
- (i) Transportation? None identified.
- (j) Safety? None identified.
- (k) Other appropriate social and economic circumstances? None identified.

**2. Secondary and cumulative impacts on the physical environment and human population:**

Secondary Impacts: None identified.

Cumulative Impacts: None identified.

**3. Describe any mitigation/stipulation measures:** None identified.

**4. Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:** No reasonable alternatives were identified in the EA.

**PART III. Conclusion**

1. ***Preferred Alternative:*** None identified.

2. ***Comments and Responses:*** None.

3. ***Finding:***

Yes\_\_\_ No\_**x**\_\_\_ Based on the significance criteria evaluated in this EA, is an EIS required?

***If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:***

An EA is the appropriate level of analysis for the proposed action because no significant impacts were identified.

***Name of person(s) responsible for preparation of EA:***

*Name:* Melissa Brickl

*Title:* Hydrologist/Water Resource Specialist

*Date:* May 31, 2016